AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1.   (currently amended)   A method of controlling routing of packets to a mobile node in a packet switching network including an infrastructure of packet switching nodes interconnected by packet transport links, ~~said packet switching nodes including a plurality of fixed core nodes~~ and a plurality of access nodes to which a routing paths, defined by ~~next-hop forwarding provided by~~ routing protocol data held in packet switching nodes located along said routing paths, may be directed in said infrastructure for a given network address,

~~said next-hop forwarding being defined in response to routing defining processes in which~~

~~routing protocol control messages are transmitted between packet switching nodes and~~

~~routing protocol data, specifying a characteristic of a route passing through an access node, is stored in said packet switching nodes,~~

said method comprising:

generating first routing protocol data for a network address used by said mobile node, said first routing protocol data specifying a characteristic of a first

route passing through a first access node, said first access node serving said

mobile node via a communications link; and

in response to said mobile node receiving service from a second access

node, generating second routing protocol data for said network address, ~~altering~~

~~said next-hop forwarding, for a first network address used by said mobile node, in~~

~~at least one of said packet switching nodes in response to mobility of said mobile~~

~~host from a first access node to a second access node, to allow packets to be routed~~

~~to said mobile host via said second access node,~~ by a routing defining process

involving ~~the transmission~~ transmitting ~~of~~ directed routing ~~control~~ update

messages to a limited number of said packet switching nodes, said second routing

protocol data specifying a characteristic of a second route passing through said

second access node, such that ~~after said routing defining process ends:~~

said first routing protocol data ~~for said first network address~~ is held in a

first set of packet switching nodes, ~~said first routing protocol data specifying a~~

~~characteristic of a first route passing through said first access node;~~ and

said second routing protocol data ~~for said first network address~~ is held in a

second set of packet switching nodes, different to said first set of packet switching

nodes~~, said second routing protocol data specifying a characteristic of a second~~

~~route passing through said second access node~~.

2.   (currently amended)   A method according to claim 1, wherein said first route characteristic ~~does not apply~~ is inapplicable to said second route.

3.   (currently amended)   A method according to claim 1, wherein said second route characteristic ~~does not apply~~ is inapplicable to said first route.

4.   (previously presented)   A method according to claim 1, comprising generating said first routing protocol data prior to mobility of said mobile node from said first access node to said second access node.

5.   (currently amended)   A method according to claim 1, wherein said second routing protocol data includes data indicating that said second routing protocol data results from mobility of said mobile node.

6.   (original)   A method according to claim 5, wherein said mobility-indicating data indicates a sequence of mobility from said first access node to said second access node.

7.   (currently amended)   A method according to claim 1, comprising limiting the storage of said second routing protocol data substantially

to packet switching nodes located in the vicinity of a routing path between said

second access node and said first access node.

8.   (previously presented)   A method according to claim 1,

comprising generating said second routing protocol data in response to a routing

protocol control message injected from the second access node.

9.   (previously presented)   A method according to claim 1, wherein

said routing protocol data relates to a number of hops along a route to said mobile

node and passing through an access node.

10.   (currently amended)   A method according to claim 1, wherein

said second set of packet switching nodes includes a subset of said first set of

packet switching nodes, and said second routing protocol data is used in

preference to said first routing protocol data to determine a next-hop routing

decision in a packet switching node holding both said first routing protocol data

and said second routing protocol data.

11.   (previously presented)   A method according to claim 1,

comprising, when routing a packet destined for said first network address, routing

said packet, from a packet switching node having a plurality of adjacent packet

switching nodes including at least one-of said first set of packet switching nodes

and only one of said second set of packet switching nodes, to said one of said

second set of packet switching nodes in preference to said at least one of said first

set of packet switching nodes.

12.   (previously presented)   A method according to claim 1,

comprising routing packets destined for said first network address via at least one

of said first set of packet switching nodes and at least one of said second set of

packet switching nodes.

13.   (previously presented)   A method according to claim 1, wherein

said first and second routing protocol data relates to next-hop routing to packet

switching nodes which are adjacent to the packet switching node in which the

routing protocol data is held, said first routing protocol data relating to next-hop

routing to a first plurality of packet switching nodes and said second data routing

protocol data relating to next-hop routing to a second plurality of packet switching

nodes, said first and said second pluralities being mutually exclusive.

14.   (previously presented)   A method according to claim 1,

comprising simultaneously holding said first and second, and third routing

protocol data, for said first network address, said third routing protocol data

relating to a third access node via which packets are currently to be transmitted to said mobile node using said first network address, in a third set, different to said first and second sets, of said packet switching nodes.

15.   (currently amended)   A method according to claim 13, wherein said third routing protocol data relates to next-hop routing to packet switching nodes which are adjacent the packet switching node in which the routing protocol data is held,[[.]] said third routing protocol data relating to next-hop routing to a third plurality of packet switching nodes, said first, said second and said third pluralities being mutually exclusive.

16.   (previously presented)   A method according to claim 14, wherein said third routing protocol data includes data which relates to said third access node and does not relate to said first and second access nodes.

17.   (previously presented)   A method according to claim 14, wherein said first, second and third routing protocol data includes data indicating a sequence of mobility from said first access node to said second access node and from said second access node to said third access node.

18. (previously presented)   A method according to claim 14,
comprising, when routing a packet destined for said first network address, routing
said packet, from a packet switching node having a plurality of adjacent packet
switching nodes including at least one of said first set and/or said second set of
packet switching nodes and only one of said third set of packet switching nodes, to
said one of said third set of packet switching nodes in preference to said at least
one of said first set and/or said second set of packet switching nodes.

19. (previously presented)   A method according to claim 14,
comprising routing packets destined for said first network address via at least one
of said first set of packet switching nodes, at least one of said second set of packet
switching nodes, and at least one of said third set of packet switching nodes.

20. (previously presented)   A method according to claim 1, wherein
said mobile node is connectable to an access node via a wireless link, said
mobility involving handover of the mobile node at the wireless link layer.

21. (original)   A method according to claim 20, wherein said mobile
node is a mobile host.

22.   (previously presented)   A method according to claim 1, wherein said network address is an Internet Protocol (IP) address.

23.   (previously presented)   A method according to claim 1, wherein said routing protocol is a link reversal routing protocol.

24.   (previously presented)   A method according to claim 1, wherein said routing protocol data is held separately from next hop forwarding tables in said packet switching nodes.

25.   (new)   A method of controlling routing of packets to a mobile node in a packet switching network including an infrastructure of packet switching nodes interconnected by packet transport links, said packet switching nodes including a plurality of fixed core nodes and a plurality of access nodes to which routing paths, defined by next-hop forwarding provided by packet switching nodes located along said routing paths, may be directed in said infrastructure for a given network address, said next-hop forwarding being defined in response to routing defining processes in which routing protocol control messages are transmitted between packet switching nodes, and routing protocol data, specifying a characteristic of a route passing through an access node, is stored in said packet switching nodes, said method comprising:

altering said next-hop forwarding, for a first network address used by said

mobile node, in at least one of said packet switching nodes in response to mobility

of said mobile node from a first access node to a second access node, to allow

packets to be routed to said mobile host via said second access node, by a routing

defining process involving the transmission of routing control messages to a

limited number of said packet switching nodes, such that after said routing

defining process ends:

first routing protocol data for said first network address is held in a first set

of packet switching nodes, said first routing protocol data specifying a

characteristic of a first route passing through said first access node; and

second routing protocol data for said first network address is held in a

second set of packet switching nodes, different to said first set of packet switching

nodes, said second routing protocol data specifying a characteristic of a second

route passing through said second access node;

wherein said second routing protocol data includes data indicating that said

second routing protocol data results from mobility of said mobile node; and

said mobility-indicating data indicates a sequence of mobility from said

first access node to said second access node.

26.   (new) A method of controlling routing of packets to a mobile node

in a packet switching network including an infrastructure of packet switching

nodes interconnected by packet transport links, said packet switching nodes

including a plurality of fixed core nodes and a plurality of access nodes to which

routing paths, defined by next-hop forwarding provided by packet switching nodes

located along said routing paths, may be directed in said infrastructure for a given

network address, said next-hop forwarding being defined in response to routing

defining processes in which routing protocol control messages are transmitted

between packet switching nodes, and routing protocol data, specifying a

characteristic of a route passing through an access node, is stored in said packet

switching nodes, said method comprising:

altering said next-hop forwarding, for a first network address used by said

mobile node, in at least one of said packet switching nodes in response to mobility

of said mobile node from a first access node to a second access node, to allow

packets to be routed to said mobile host via said second access node, by a routing

defining process involving the transmission of routing control messages to a

limited number of said packet switching nodes, such that after said routing

defining process ends:

first routing protocol data for said first network address is held in a first set

of packet switching nodes, said first routing protocol data specifying a

characteristic of a first route passing through said first access node; and

second routing protocol data for said first network address is held in a

second set of packet switching nodes, different to said first set of packet switching

nodes, said second routing protocol data specifying a characteristic of a second

route passing through said second access node;

wherein said second set of packet switching nodes includes a subset of said

first packet switching nodes, and said second routing protocol data is used in

preference to said first routing protocol data to determine a next-hop routing

decision in a packet switching node holding both said first routing protocol data

and said second routing protocol data.

27.   (new) A method of controlling routing of packets to a mobile node

in a packet switching network including an infrastructure of packet switching

nodes interconnected by packet transport links, said packet switching nodes

including a plurality of fixed core nodes and a plurality of access nodes to which

routing paths, defined by next-hop forwarding provided by packet switching nodes

located along said routing paths, may be directed in said infrastructure for a given

network address, said next-hop forwarding being defined in response to routing

defining processes in which routing protocol control messages are transmitted

between packet switching nodes, and routing protocol data, specifying a

characteristic of a route passing through an access node, is stored in said packet

switching nodes, said method comprising:

altering said next-hop forwarding, for a first network address used by said

mobile node, in at least one of said packet switching nodes in response to mobility

of said mobile node from a first access node to a second access node, to allow

packets to be routed to said mobile node via said second access node, by a routing

defining process involving the transmission of routing control messages to a

limited number of said packet switching nodes, such that after said routing

defining process ends:

first routing protocol data for said first network address is held in a

first set of packet switching nodes, said first routing protocol data

specifying a characteristic of a first route passing through said first access

node; and

second routing protocol data for said first network address is held in

a second set of packet switching nodes, different to said first set of packet

switching nodes, said second routing protocol data specifying a

characteristic of a second route passing through said second access node;

and

when routing a packet destined for said first network address, routing said

packet, from a packet switching node having a plurality of adjacent packet

switching nodes including at least one-of said first set of packet switching nodes

and only one of said second set of packet switching nodes, to said one of said

second set of packet switching nodes in preference to said at least one of said first

set of packet switching nodes.

28.   (new) A method of controlling routing of packets to a mobile node in a packet switching network including an infrastructure of packet switching nodes interconnected by packet transport links, said packet switching nodes including a plurality of fixed core nodes and a plurality of access nodes to which routing paths, defined by next-hop forwarding provided by packet switching nodes located along said routing paths, may be directed in said infrastructure for a given network address, said next-hop forwarding being defined in response to routing defining processes in which routing protocol control messages are transmitted between packet switching nodes, and routing protocol data, specifying a characteristic of a route passing through an access node, is stored in said packet switching nodes, said method comprising:

altering said next-hop forwarding, for a first network address used by said mobile node, in at least one of said packet switching nodes in response to mobility of said mobile node from a first access node to a second access node, to allow packets to be routed to said mobile node via said second access node, by a routing defining process involving the transmission of routing control messages to a limited number of said packet switching nodes, such that after said routing defining process ends:

first routing protocol data for said first network address is held in a first set of packet switching nodes, said first routing protocol data specifying a characteristic of a first route passing through said first access node; and

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second routing protocol data for said first network address is held in a

second set of packet switching nodes, different to said first set of packet switching

nodes, said second routing protocol data specifying a characteristic of a second

route passing through said second access node;

wherein said first and second routing protocol data relates to next-hop

routing to packet switching nodes which are adjacent to the packet switching node

in which the routing protocol data is held, said first routing protocol data relating

to next-hop routing to a first plurality of packet switching nodes and said second

data routing protocol data relating to next-hop routing to a second plurality of

packet switching nodes, said first and said second pluralities being mutually

exclusive.

29.   (new) A method of controlling routing of packets to a mobile node

in a packet switching network including an infrastructure of packet switching

nodes interconnected by packet transport links, said packet switching nodes

including a plurality of fixed core nodes and a plurality of access nodes to which

routing paths, defined by next-hop forwarding provided by packet switching nodes

located along said routing paths, may be directed in said infrastructure for a given

network address, said next-hop forwarding being defined in response to routing

defining processes in which routing protocol control messages are transmitted

between packet switching nodes, and routing protocol data, specifying a

characteristic of a route passing through an access node, is stored in said packet

switching nodes, said method comprising:

altering said next-hop forwarding, for a first network address used by said

mobile node, in at least one of said packet switching nodes in response to mobility

of said mobile node from a first access node to a second access node, to allow

packets to be routed to said mobile node via said second access node, by a routing

defining process involving the transmission of routing control messages to a

limited number of said packet switching nodes, such that after said routing

defining process ends:

first routing protocol data for said first network address is held in a

first set of packet switching nodes, said first routing protocol data

specifying a characteristic of a first route passing through said first access

node; and

second routing protocol data for said first network address is held in

a second set of packet switching nodes, different to said first set of packet

switching nodes, said second routing protocol data specifying a

characteristic of a second route passing through said second access node;

and

simultaneously holding said first and second, and third routing protocol

data, for said first network address, said third routing protocol data relating to a

third access node via which packets are currently to be transmitted to said mobile

node using said first network address, in a third set, different to said first and second sets, of said packet switching nodes;

wherein said first, second and third routing protocol data includes data indicating a sequence of mobility from said first access node to said second access node and from said second access node to said third access node.

30.   (new) A method of controlling routing of packets to a mobile node in a packet switching network including an infrastructure of packet switching nodes interconnected by packet transport links, said packet switching nodes including a plurality of fixed core nodes and a plurality of access nodes to which routing paths, defined by next-hop forwarding provided by packet switching nodes located along said routing paths, may be directed in said infrastructure for a given network address, said next-hop forwarding being defined in response to routing defining processes in which routing protocol control messages are transmitted between packet switching nodes, and routing protocol data, specifying a characteristic of a route passing through an access node, is stored in said packet switching nodes, said method comprising:

altering said next-hop forwarding, for a first network address used by said mobile node, in at least one of said packet switching nodes in response to mobility of said mobile node from a first access node to a second access node, to allow packets to be routed to said mobile host via said second access node, by a routing

defining process involving the transmission of routing control messages to a

limited number of said packet switching nodes, such that after said routing

defining process ends:

first routing protocol data for said first network address is held in a

first set of packet switching nodes, said first routing protocol data

specifying a characteristic of a first route passing through said first access

node; and

second routing protocol data for said first network address is held in

a second set of packet switching nodes, different to said first set of packet

switching nodes, said second routing protocol data specifying a

characteristic of a second route passing through said second access node;

and

simultaneously holding said first and second, and third routing protocol

data, for said first network address, said third routing protocol data relating to a

third access node via which packets are currently to be transmitted to said mobile

node using said first network address, in a third set, different to said first and

second sets, of said packet switching nodes;

when routing a packet destined for said first network address, routing said

packet, from a packet switching node having a plurality of adjacent packet

switching nodes including at least one of said first set and/or said second set of

packet switching nodes and only one of said third set of packet switching nodes, to

said one of said third set of packet switching nodes in preference to said at least

one of said first set and/or said second set of packet switching nodes.

31.   (new) A method according to claim 28, wherein said third routing

protocol data relates to next-hop routing to packet switching nodes which are

adjacent the packet switching node in which the routing protocol data is held, said

third routing protocol data relating to next-hop routing to a third plurality of

packet switching nodes, said first, said second and said third pluralities being

mutually exclusive.